



CATALINA ISLAND CONSERVANCY

A responsible steward of its lands through a balance of conservation, education and recreation

JOB DESCRIPTION

POSITION: GIS Program Manager

REPORTS TO: Conservation Operations Director **STATUS:** Full Time, Exempt

UPDATED: November 2019 **DEPT:** Conservation

POSITION SUMMARY:

The GIS Program Manager is responsible for developing and implementing the Geographic Information System Program in support of Conservancy projects, programs, resource management plans and strategic priorities including the following: providing short-, medium- and long-term project and program support to Conservancy staff and departments; developing and maintaining software and hardware for integrated geospatial data management and analysis including web applications; creating, editing and maintaining simple and complex Geographical Information System (GIS) data; collecting (in the office and the field), processing, digitizing data for creation of map products, and creation of metadata for data sets; providing IT, environmental sensor network support or other program support as directed.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Lead in all aspects relating to GIS program development and implementation with an emphasis on geospatial database development, short-, medium- and long-term project support, grant support, and project management. Provide necessary GIS support and analysis for Island's integrated land management plan.
- Administer CIC online GIS data, assist marketing manager with web based geospatial data and maps.
- In collaboration with appropriate agencies and organizations, foster data acquisition and sharing relationships for improving GIS data sources, including internal data sources and external web data.
- Create and update supporting metadata and catalogue GIS layers, including documenting work flow procedures for staff using GIS, both in the office and in the field.
- Develop geospatial models and perform quantitative and spatial analyses using statistical and Geographic Information Systems (GIS) software. Ensures accurate and timely entry of data.
- As directed, produce detailed maps for projects, grants, presentations, board meetings and Conservancy management and staff.
- Provide information technology (IT) support for Middle Ranch offices with support under direction of the Computer Services/IT Consultant.
- Assist in maintenance, operation and/or data management of environmental sensor networks.
- Recommend appropriate changes in practices to improve the ability of the Conservancy to accomplish its mission. Effectively communicate progress and results through professional organizations and publications, staff training, presentations to general public, internal/external media.
- Perform essential administrative functions including, but not limited to, the following: develop and manage operating and capital budgets; purchase services and materials; maintain and care

for equipment and tools; implement safety policy and procedures for assigned areas.

- Updates and enhances knowledge by continuing education for professional growth, i.e., attends relevant conferences, seminars and certification programs.
- Occasionally participate in ground and aerial field operations and perform field mapping and ground truthing using GPS units (such as Trimble GeoXT).
- Submits a yearly work program.
- Performs resource management approximately 25% of the time and other duties as assigned.

REQUIRED QUALIFICATIONS:

KNOWLEDGE/SKILLS:

- Well-versed in all aspects of the use, manipulation, data management and acquisition and analysis using GIS software, especially ESRI products including arcGIS Online with strong experience in the following: practical GIS support of conservation or facility operations projects including data management, developing appropriate GIS analyses of problems, acquisition or modification of existing spatial layers to solve new problems, and knowledge of GIS hardware requirements and an ability to maintain and/or install necessary IT software and hardware infrastructure.
- Ability to produce functional and aesthetically attractive digital and physical map products for multiple user groups (public recreational users, marketing department, board members, executive team, staff scientists and land managers, trail managers, facility operations staff and management, local public officials and private concerns).
- Demonstrated ability to summarize, analyze, and develop written reports and presentations on results of project activities.
- Field experience mapping ecological, cultural or built resources with Trimble or equivalent technology highly desirable.
- Strong data management, IT and statistical analysis skills required.

COMPLEXITY/PROBLEM SOLVING:

- Able to think critically and creatively to develop solutions to complex conservation, facility operations and land use problems.
- Ability to adapt and respond to unexpected or unplanned ecological (e.g. fire, drought, new invasions) or programmatic (e.g. changes in organizational priorities or funding) circumstances while still progressing towards core program objectives.
- Ability to work effectively on an interdisciplinary team balancing conservation, recreation and education organizational goals.

COMMUNICATIONS/INTERPERSONAL CONTACTS:

- Strong customer service skills (internal and external) extremely important. Ability to function and thrive in role of internal GIS consultant within complex, multi-goal (conservation, education, recreation) organization with diverse professional staff (scientists, operations professionals, visitor experience managers, marketing and public relations) crucial.
- Demonstrated ability to communicate clearly both orally and in writing Supervisory experience in managing professional employees, interns and volunteers with varying skills, with preference for experience in a non-profit environment.
- Ability to work both independently or as a part of a team is essential and consistently demonstrate professional, positive, and approachable attitude/demeanor.

EDUCATION/EXPERIENCE:

Bachelor degree in Geographic Information Systems, geography, computer science, or a related field or degrees in the natural sciences (ecology, biology, zoology, etc.) with strong on-the-job experience or training in using and developing applied GIS skills. Two to four (2-4) years of experience working with tabular and spatial data management systems for a resource management agency. Experience developing and performing spatial analyses using GIS software. Experience presenting results based on interpretation of spatial data in oral, graphic, or written formats. Prior supervisory experience with interns, seasonal workers, or GIS field technicians desirable.

SECONDARY QUALIFICATIONS:

- Knowledge of open-source GIS and database software as well as prior programming language experience. Knowledge of R desired.
- Knowledge of California climate, geology, land use history, flora or fauna.
- Prior experience or willingness/ability to learn deployment, operation and data management of environmental sensor networks.

DEMANDS:

- **Employee must live and work on Catalina Island.**
- The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. The office environment has moderate noise levels and is a non-smoking environment. Work may be conducted independently or with groups of staff and/or volunteers. Field conditions are strongly weather-dependent and may be hot, dusty, cold, muddy, and/or wet depending on season and degree of exposure. Hiking conditions include steep, rugged terrain with occasionally encountering unstable rocky substrate, dense stands of poison oak and cactus and/or wild animals, such as bison and rattlesnakes.
- The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Position involves functioning in both field and office environments. Field work involves hiking long distances over rugged terrain and through dense scrub; and requires the ability to drive project vehicles both on and off road, and potentially work in and around helicopters. The employee must occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, depth perception, and the ability to adjust focus.
- The job may require working an occasional weekend or in the evening.
- Must possess a valid driver's license and be able to operate a 4-wheel drive vehicle.